



William J. Cahill, Jr.  
Chief Nuclear Officer

May 2, 1996  
JPN-96-020

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Subject: James A. FitzPatrick Nuclear Power Plant  
Docket No. 50-333  
**Generic Letter 92-01, Revision 1, Supplement 1**  
**Reactor Vessel Structural Integrity - Revised Six Month Response**

- References:
1. NYPA letter, W. J. Cahill, Jr. to USNRC (JPN-95-050), "Generic Letter 92-01, Revision 1, Supplement 1, Reactor Vessel Structural Integrity - Six Month Response," dated November 20, 1995.
  2. NRC Generic Letter 92-01, Revision 1, Supplement 1, "Reactor Vessel Structural Integrity," dated May 19, 1995.

Dear Sir:

This letter submits a revised Attachment 1 to replace the Attachment 1 submitted with Reference 1. The revised attachment corrects the value for the revised nickel content for weld wire heat numbers 13253/12008 as shown in the table on page 1 of Attachment 1. The revision changes the nickel content value reported in the table from 0.060 % to 0.804 %, which is consistent with the data shown in Attachment 2 of Reference 1. This resulted from an incorrect transfer of data during the preparation of the submittal.

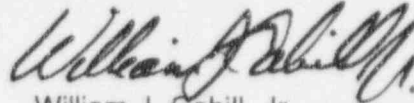
Reference 1 reported new chemistry data pertinent to the analysis of structural integrity of the FitzPatrick reactor pressure vessel (RPV), and was in response to an NRC request (Reference 2). Since the correct chemistry values were considered in the analysis performed pursuant to Reference 2, the revision discussed above does not change the conclusions, as previously reported in Reference 1, that the new chemistry data confirms the validity of the RPV temperature limits in the Technical Specifications, and confirms compliance with the structural integrity requirements of 10 CFR 50.60, 10 CFR 50.61, and Appendices G and H to 10 CFR Part 50.

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There are no new commitments associated with this submittal. If you have any questions, please contact Ms. C. D. Faison.

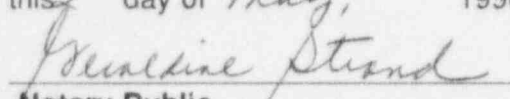
Very truly yours,



William J. Cahill, Jr.  
Chief Nuclear Officer

**STATE OF NEW YORK  
COUNTY OF WESTCHESTER**

Subscribed and sworn to before me  
this 2<sup>nd</sup> day of May, 1996.

  
Notary Public

**GERALDINE STRAND**  
Notary Public, State of New York  
No. 4991272  
Qualified in Westchester County  
Commission Expires Jan. 27, 1998

att: as stated

cc: Regional Administrator - Region I  
U.S. Nuclear Regulatory Commission  
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King of Prussia, PA 19406

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U.S. Nuclear Regulatory Commission  
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Ms. K. Cotton, Acting Project Manager  
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Division of Reactor Projects I/II  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

**ATTACHMENT TO JPN-96-020**

Attachment 1, Revision 1, to JPN-95-050  
Generic Letter 92-01, Revision 1, Supplement 1  
Reactor Vessel Structural Integrity - Six Month Response

for

James A. FitzPatrick Nuclear Power Plant

**ATTACHMENT 1, REVISION 1, to JPN-95-050**

**GENERIC LETTER 92-01, REVISION 1, SUPPLEMENT 1  
REACTOR VESSEL STRUCTURAL INTEGRITY - SIX MONTH RESPONSE**

**for**

**James A. FitzPatrick Nuclear Power Plant  
Docket No. 50-333**

**New York Power Authority**

**Attachment 1, Revision1, to JPN-95-050**

James A. FitzPatrick Nuclear Power Plant  
Docket No. 50-333

**Generic Letter 92-01, Revision 1, Supplement 1**  
**Reactor Vessel Structural Integrity - Six Month Response**

This report provides a response to information requested in Parts 2, 3, and 4 of NRC Generic Letter 92-01, Revision 1, Supplement 1, for the James A. FitzPatrick Nuclear Power Plant.

**Assessment of Changes in Best-Estimate Chemistry**

NRC Request (GL 92-01, Rev. 1, Supp. 1, Part 2):

Provide an assessment of any change in best-estimate chemistry based on consideration of all relevant data.

Response:

The search of available data bases confirms that the baseplate chemistry (copper-nickel content) remains unchanged. The confirmation consisted of reviewing the actual material certifications from the plate mill, the NRC Reactor Vessel Integrity Database-Summary File for Upper Shelf Energy and Summary File for PTS, and, for copper, data from the plate manufacturer. The copper content data is based on ladle analysis values. The nickel content data is based on check analysis values.

The search of the available data bases resulted in the following changes in the weld chemistry data associated with the circumferential and axial welds in the beltline region:

Heat No. Weld	Previous Copper Content %	Revised Copper Content %	Previous Nickel Content %	Revised Nickel Content %
13253/12008 Lwr-Int. Shell Axial	0.26	0.253	0.87	0.804
27204/12008 Lwr. Shell Axial	0.25	0.183	0.99	1.008
305414 Circ.	0.33	0.337	0.59	0.600

The search located 10 datapoints for Heat No. 13253/12008, 6 datapoints for Heat No. 27204/12008, and 4 datapoints for Heat No.305414. The revised values in the table above were computed by averaging the datapoints. The sources of the weld chemistry data are:

- NRC - Reactor Vessel Integrity Database, Version 1.1, July 1995
- WOG - Reactor Vessel Database RPV Data, September 1995 (pre-release version)

See Attachment 2 for a compilation of the plate and weld chemistry data identified, and the calculation of the average chemistry content considered in the evaluation.

### **Need for the Use of the Regulatory Guide 1.99 Ratio Procedure**

NRC Request (GL 92-01, Rev. 1, Supp. 1, Part 3)

Provide a determination of the need for use of the ratio procedure in accordance with the established Position 2.1 of Regulatory Guide 1.99, Revision 2, for those licensees that use surveillance data to provide a basis for the RPV integrity evaluation.

Response:

The FitzPatrick RPV material evaluations do not use the ratio procedure because only one surveillance sample has been removed and analyzed for the FitzPatrick RPV. The second sample is scheduled for removal during the next refueling outage.

### **Results of Any Revisions to the Evaluation of RPV Integrity**

NRC Request (GL 92-01, Rev. 1, Supp. 1, Part 4)

Provide a written report providing any newly acquired data as specified above and (1) the results of any necessary revisions to the evaluation of RPV integrity in accordance with the requirements of 10 CFR 50.60, 10 CFR 50.61, Appendices G and H to 10 CFR Part 50, and any potential impact on LTOP or P-T limits in the technical specifications or (2) a certification that previously submitted evaluations remain valid. Revised evaluations and certifications should include consideration of Position 2.1 of Regulatory Guide 1.99, Revision 2, as applicable, and any new data.

Response:

Calculations using the new chemistry data discussed above confirm that the FitzPatrick reactor vessel continues to be limited by the lower shell axial welds 2-233 A-C. The new

chemistry data results in a lower Adjusted Reference Temperature (ART) for this limiting weld. Accordingly, the P-T curves in the FitzPatrick Technical Specifications, presented for up to 12, 14, and 16 EFPY of operation, remain valid. The new calculation yields the following limiting value for the RPV:

ART @16 EFPY = 107°F (previously 116°F)

This value remains well within the limits of 200°F maximum for the ART. The revised chemistry values remain within the bounding chemistry assumed in the Upper Shelf Energy Equivalent Margin Analysis submitted by References 1 and 2, and approved by the NRC in Reference 3.

References:

1. NYPA letter, W. A. Josiger to NRC (JPN-94-021), "Generic Letter 92-01, Revision 1, Reactor Vessel Structural Integrity," dated April 29, 1994.
2. NYPA letter, W. A. Josiger to NRC (JPN-94-041), "Generic Letter 92-01, Revision 1, "Reactor Vessel Structural Integrity," dated August 10, 1994.
3. NRC letter, L. B. Marsh to W. J. Cahill Jr., "Applicability of GE Topical Report NEDO-32205, Revision 1, For The James A. FitzPatrick Nuclear Power Plant (TAC No. M89580), dated March 30, 1995.